

Applicants: GLUKHOVSKY, Arkady et al.
Serial Number: 10/705,982
Attorney Docket: P-2648-US1

Amendments to the Claims:

The following Listing of Claims replaces all prior versions and Listings of Claims in this Application:

Listing of Claims:

1. (Withdrawn) An in vivo camera system comprising:
an imager having a variable frame capture rate for producing frames;
at least one sensor for measuring a physical property relatable to the motion of said camera system;
a data processor in communication with said sensor for determining a frame capture rate in response to output of said sensor; and
a controller for providing said determined frame capture rate to said imager
2. (Withdrawn) A system according to claim 1, wherein said sensor is an accelerometer.
3. (Withdrawn) A system according to claim 2, and including an integrator in communication with said accelerometer for generating the velocity of said in vivo camera system.
4. (Withdrawn) A system according to claim 1, wherein said sensor is a pressure sensor.
5. (Withdrawn) A system according to claim 1, wherein said sensor is an induction coil and said in vivo camera system is moving in a magnetic field.
6. (Withdrawn) A system according to claim 1, wherein said sensor is an ultrasound transducer.

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7. (Withdrawn) An in vivo camera system comprising:
 - an imager having a variable frame capture rate for producing frames;
 - a storage device for storing frames captured by said imager;
 - an image processor for calculating the required frame capture rate from at least two frames; and
 - a controller for providing said calculated frame capture rate to said imager.
8. (Currently Amended) A display system for displaying the output of an in vivo camera system, the display system comprising:
 - a receiver to receive data of frames of output of an autonomous in vivo imaging device;
 - a storage unit for storing the data of frames of output ~~of said camera system;~~
 - an image processor for correlating the data of said output to determine the extent of their similarity and for generating a frame display rate therefrom, wherein said frame display rate is slower when said data are generally different and faster when said data are generally similar; and
 - a display unit for displaying said frames received from said storage unit.
9. (Previously Presented) A display system according to claim 8 wherein said frames are two consecutive frames.
10. (Previously Presented) A display system according to claim 8 wherein said frames are two non-consecutive frames.
11. (Currently Amended) A display system according to claim 8 further comprising a controller in communication with said storage unit and said image processor, wherein said controller varies said display rate of said display unit.
12. (Withdrawn) A system according to claim 1 further comprising a display system

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comprising:

a frame storage unit for storing at least two frames of output of said camera system;
an image processor for correlating at least two frames of said output to determine the extent of their similarity and for generating a frame display rate correlated with said similarity, wherein said frame display rate is slower when said frames are generally different and faster when said frames are generally similar; and
a display unit for displaying said frames received from said frame storage at said frame display rate.

13. (Withdrawn) An in vivo camera system according to claim 7 further comprising a display system comprising:
a frame storage unit for storing at least two frames of output of said camera system;
an image processor for correlating at least two frames of said output to determine the extent of their similarity and for generating a frame display rate correlated with said similarity, wherein said frame display rate is slower when said frames are generally different and faster when said frames are generally similar; and
a display unit for displaying said frames received from said frame storage at said frame display rate
14. (Withdrawn) A method for varying the frame capture rate of a series of frames generated by an in vivo camera system, the system comprising an imager, the method comprising the steps of:
storing said frames in a storage device;
correlating changes in the details of at least two frames;
changing said frame capture rate to a predetermined frame capture rate according to the degree of change between said at least two frames; and
communicating said required frame capture rate to said imager.
15. (Withdrawn) A method according to claim 14 wherein said at least two frames are

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consecutive frames.

16. (Withdrawn) A method according to claim 14 wherein said at least two frames are non-consecutive frames.
17. (Withdrawn) A method for varying the frame capture rate of a series of frames generated by an in vivo camera system, the system comprising an imager, the method comprising the steps of:
measuring a physical quantity experienced by said camera system;
converting said physical quantity to a velocity of said camera system;
correlating said velocity with a predetermined frame capture rate; and
communicating said predetermined capture rate to said imager.
18. (Withdrawn) A method according to claim 17, wherein the step of measuring includes the steps of measuring acceleration and generating velocity data from said acceleration data.
19. (Withdrawn) A method according to claim 17, wherein the step of measuring includes the step of measuring acceleration.
20. (Withdrawn) A method according to claim 17, wherein the step of measuring includes the step of measuring pressure.
21. (Withdrawn) A method according to claim 17, wherein the step of measuring includes the step of measuring induced current when the camera system is moving in a magnetic field.
22. (Withdrawn) A method according to claim 17, wherein the step of measuring includes the step of measuring the motion of said camera system with an ultrasound transducer.

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Serial Number: 10/705,982
Attorney Docket: P-2648-US1

23. (Currently Amended) A method for varying a frame display rate of frames generated by an in vivo camera system, the method comprising the steps of:
receiving data of the frames from an autonomous in vivo imaging device;
storing said frames;
correlating at least two frames; ~~and~~
based on the correlation, varying the frame display rate; and
communicating said frame display rate.
24. (Original) A method according to claim 23 wherein said at least two frames are consecutive frames.
25. (Original) A method according to claim 23 wherein said at least two frames are non-consecutive frames.
26. (Previously Presented) A method according to claim 23 comprising displaying one frame repeatedly.
27. (Previously Presented) A method according to claim 23 comprising eliminating display of a frame.
28. (Withdrawn) An in vivo camera system according to claim 1, and also including an antenna array, said array receiving data from said sensor and communicating said data to said data processor.